

REMARKS

Applicant has checked the specification and found some English grammar mistakes and informalities in the drafting. Applicant has corrected the mistakes accordingly. These amendments do not add any new matter.

Claims 4, 5, 7, 10, 14 have been canceled without prejudice. Two new claims 17-18 have been added, and no new matter has been entered. Newly added claims 17, 18 respectively represent the subject matter of original claims 10, 14.

Claim Rejections under 35 U.S.C. 102

Claims 1-3, 5, 7, 11 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Nierenberg et al. (U.S. Pat. 2,646,637).

Nierenberg (FIG. 3) discloses an illuminator comprising: a block formed by wedges (10 and 11), a first lamp (13) placed at the left edge of the block, and a second lamp (13) placed at the right edge of the block (column 3, lines 59-62). The left and right edges are made concave (column 4, lines 55-58).

In response to the rejection, applicant has canceled claims 4, 5, 7, 10, and 14, and amended claims 1 and 15. Applicant traverses the rejection as follows:

Amended claim 1 now recites in pertinent part "a backlight module, comprising: a light source group having a plurality of point light sources, and a light guide plate having a light input surface ... and a light output surface ... the light input surface being concave; wherein the light source group faces the light

input surface, and the light input surface has a curvature matching a distribution of light from the light source group."

Firstly, fields of technology of Nierenberg and amended claim 1 are different. Nierenberg relates to a device for transilluminating transparencies, and such a device is of utility for viewing X-ray film, other photographic negatives, retouching photo graphic film and for numerous advertising uses (column 1, lines 5-7). However, amended claim 1 relates to a backlight module used in a liquid crystal display.

Secondly, Nierenberg (FIG. 3) discloses the effect that a first lamp (13) is placed at a concave left edge of the block and a second lamp (13) is placed at a right concave edge of the block (column 3, lines 59-62 and column 4, lines 55-58). Amended claim 1 recites to the effect that a plurality of point light sources face the light input surface, which has a curvature matching a distribution of light from the light sources.

Thus, amended claim 1 recites that a plurality of point light sources face the light input surface, and Nierenberg (FIGS. 3 and 8) discloses that just one linear lamp faces one edge of the block. These differences indicate that Nierenberg does not teach a backlight module comprising all the limitations recited in amended claim 1.

Further, applicant submits that claim 1 is patentable over Nierenberg under 35 U.S.C. 103. There is nothing in the cited reference that teaches or suggests to one of ordinary skill in the art that they might or should provide the backlight module of amended claim 1. In amended claim 1, a plurality of light sources face the light input surface of the light guide plate, and the light input surface has a

curvature matching a distribution of light from the light sources. Thus the light guide plate is entirely illuminated, and has no dark zones. Compare this with Nierenberg, which discloses that “the wedge bases are made concave so that the lamps 13 can be set closer to them, thus decreasing the necessary width of the illuminator (column 4, lines 55-58).” Therefore, the backlight module of amended claim 1 produces new and unexpected results.

Accordingly, amended claim 1 is submitted to be unobvious and patentable over Nierenberg. Reconsideration and withdrawal of the rejection and allowance of amended claim 1 are respectfully requested.

Claims 2-3, and 11 depend either directly or indirectly from independent amended claim 1, and therefore should also be allowable.

Amended claim 15 recites a backlight module, wherein at least one of said light input surface and a dispersion manner of said plurality of spaced light sub-sources is configured to **be in a form of concave to conform with the other so as to form no dark zones in the light guide plate.** For similar reasons to those asserted above in relation to amended claim 1, it is submitted that Nierenberg does not disclose, teach or suggest all the limitations of the backlight module of amended claim 15.

Accordingly, amended claim 15 is submitted to be patentable over Nierenberg under both 35 U.S.C. 102(b) and 35 U.S.C. 103. Reconsideration and withdrawal of the rejection and allowance of amended claim 15 are respectfully requested.

Claim 16 depends from independent amended claim 15, and therefore should also be allowable.

Claim Rejections under 35 U.S.C. 103

Claims 4, 6, 8-10 and 12-14 are understood to be rejected under 35 U.S.C. 103(a) as being unpatentable over Nierenberg et al. (U.S. Pat. 2,646,637) in view of Ehara et al. (U.S. Pat. 6,601,962).

Examiner states that Nierenberg does not specifically teach light source including a group of point light sources.

Examiner further states that Ehara (FIGS. 15-16) teaches a surface light emitting device including a light guide plate (501) with light emitting diodes arranged therein (Column 11, Lines 24-27). And that accordingly, it would have been obvious to one ordinarily skilled in the art at the time the invention was made to modify the backlight module of Nierenberg to incorporate the light emitting diodes. Such a configuration is considered an obvious matter of design choice.

Claims 4, 6, 8, 9, 12 and 13 depend directly or indirectly from amended claim 1. Applicant now traverses the rejection insofar as it applies to amended claim 1, as follows:

Firstly, fields of technology of Nierenberg and Ehara are different. Nierenberg relates to a device for transilluminating transparencies, and such a device is of utility for viewing X-ray film, other photographic negatives, retouching photo graphic film and for numerous advertising uses (column 1, lines 5-7). However, Ehara relates to a surface light emitting device which is used for a back light of a liquid crystal display. Therefore, Nierenberg cannot be combined with Ehara.

Secondly, in claim 1, a plurality of light sources face the light input surface of the light guide plate, and the light input surface **has a curvature matching a distribution of light from the light sources.** Thus the light guide plate is entirely illuminated, and has no dark zones.

By contrast, in Ehara, the surface light emitting device has one or more notches or recesses 505a on the end face of the light guide plate and the top end of at least the notch or recess is formed at a distance from the light emitting surface, thereby to enter the incident light while being diffused in the light guide plate preventing abnormal light emission in the light emitting surface (Column 11, Lines 36-43). And Nierenberg discloses "the wedge bases are made concave so that the lamps 13 can be set closer to them, thus decreasing the necessary width of the illuminator (Column 4, Lines 55-58)." Therefore, when Ehara is combined with Nierenberg, it would not be obvious to obtain the amended claim1 with its unique advantages.

In summary, there is nothing in the cited reference that teaches or suggests to one of ordinary in the art that they might or should be combined to provide the backlight module of amended claim 1. Moreover, the backlight module of amended claim 1 produces new and unexpected results. That is, the light guide plate is entirely illuminated, and has no dark zones.

Accordingly, amended claim 1 is submitted to be unobvious and patentable over Nierenberg in view of Ehara. Because claims 4, 6, 8, 9, 12 and 13 directly or indirectly depend from claim 1. Thus, reconsideration and withdrawal of the rejection and allowance of claims 4, 6, 8-10 and 12-13 are respectfully requested.

In view of the foregoing, the present application as claimed in the pending claims is considered to be in a condition for allowance, and an action to such effect is earnestly solicited.

Respectfully submitted,
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